

## RESEARCH NOTE

### THE EXTREMELY RARE *PRODIDOMUS RUFUS* HENTZ (ARANEAE, PRODIDOMIDAE) IN CALIFORNIA

Recently, in southern California, I collected a mature male of *Prodidomus rufus* Hentz 1847; this is an extremely rare find. The family was erected by Hentz based on an immature *P. rufus* from Alabama (Hentz 1847, 1875); no additional mention of this spider was made until Banks (1892) collected several more immature specimens from Louisiana. It was many years later before the first mature female (Bryant 1935) and mature male (Bryant 1949) were described, both specimens being collected in Texas. When the subfamily Prodidominae was reviewed by Cooke (1964), these two specimens were the only known mature *P. rufus* spiders. Although members of the subfamily Prodidominae are distributed worldwide, they are sparsely represented in collections. In Cooke's review of 11 genera and approximately 40 species, he states "remarkably few specimens of this family have been collected, probably less than 200 individuals". Inquiries made to major North American collections, as well as to several arachnologists in the southern US, revealed few mature specimens of *P. rufus*. Other than the mature specimens described by Bryant, only one other mature male from Cuba has been collected (Alayon Garcia 1992) and only three mature females are known: two from California and one from Texas (N. Platnick pers. comm.).

A mature *P. rufus* male was collected on 27 May 1995 at 2200 h in Riverside, California (*Riverside County*: ¼ mi. W Sycamore Canyon Park (R. S. Vetter)) as it was actively moving about. The remarkable securing of this rare spider was juxtaposed by the banality of the collection locale: the bathroom countertop in the author's second-story apartment. This male agrees with the one described in

Bryant (1949) with a few minor variations in somatic features. The Texas male is 3 mm long whereas this recently collected male is 4.5 mm in overall length (not including the chelicerae). Measurements for the Riverside specimen which are commensurate with those taken by Bryant (1949) are: cephalothorax (2.0 mm long, 1.5 mm wide), abdomen (2.5 mm long, 1.7 mm wide) and palpus (2.5 mm long).

Two mature female *P. rufus* (previously unreported) have also been found in California: *Imperial County*: (1 mi. W Harper's Well, San Felipe Creek, 7 November 1968 (M. E. Irwin, P. A. Roach)). *Kings County*: (Kettleman Hills, 4 February 1994, under rocks and boards (W. H. Tyson)). Although the predominant pantropic habitat for *Prodidomus* is hot, dry desert, some species have been collected in damp forest (Cooke 1964). The most common collection site for several species is from underneath rocks while others are synanthropic with the dubious habitat of the African *P. domesticus* Lessert 1938 given as "leper's huts" (Cooke 1964). Regarding this most recently collected *P. rufus*, the landscaping of the Riverside collection site consists of an abundance of tall broad-leaved trees (eucalyptus, sycamore, alder) and grassy areas with the neighboring property being other apartment complexes and a chaparral-dominated xeric natural park. The majority of synanthropic spiders collected inside the author's domicile have consisted of gnaphosids, clubionids and pholcids.

In the past, the Prodidomidae has been associated taxonomically with the Gnaphosidae due to gross morphological similarities (i.e., enlarged, well-separated spinnerets) but was revalidated to family rank by Platnick (1990)

based on more refined spinneret spigot morphology. The eye pattern almost creates a circle due to the extremely procurved nature of the posterior eye row intersecting with the straight anterior eyes. The AME of most prodidomids are darkly pigmented whereas the other six eyes are not. Other characteristics that help distinguish this spider are protruding, geniculate chelicerae and unarmed tarsal claws.

Of the three known California *P. rufus*, the Kings County specimen is housed in the California Department of Food & Agriculture collection (Sacramento); the other two specimens are in the Univ. of California, Riverside Entomology Museum Collection. I would like to thank Dr. N. Platnick for supplying information, for corroborating my identification and for making comments on a draft of the manuscript. S. Frommer and W. Icenogle also made helpful comments, and W. Poehner translated the paper in *Poeyana*. I thank the following for responding to my inquiries of the occurrence of *P. rufus* in collections of their museums and/or states: R. Breene, A. Dean, G. B. Edwards, C. Griswold, W. Icenogle, D. Richman, P. Sierwald.

#### LITERATURE CITED

- Alayon Garcia, G. 1992. La subfamilia Prodidominae (Araneae: Gnaphosidae) en Cuba. *Poeyana*, 417:1-6.
- Banks, N. 1892. On *Prodidomus rufus* Hentz. *Proc. Ent. Soc. Washington*, 2:259-261.
- Bryant, E. B. 1935. A rare spider. *Psyche*, 42:163-166.
- Bryant, E. B. 1949. The male of *Prodidomus rufus* Hentz (Prodidomidae, Araneae). *Psyche*, 56:22-25.
- Cooke, J. A. L. 1964. A revisionary study of some spiders of the rare family Prodidomidae. *Proc. Zool. Soc. London*, 142:257-305.
- Hentz, N. M. 1847. Descriptions and figures of the Araneides of the United States. *Boston Soc. Nat. Hist.*, 5:443-478. (reprint) 1875. *Occ. Papers Boston Soc. Nat. Hist.*, 2:1-175.
- Platnick, N. I. 1990. Spinneret morphology and the phylogeny of ground spiders (Araneae, Gnaphosidae). *American Mus. Novit.*, No. 2978, 42 pp.
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*Manuscript received 28 July 1995, revised 4 November 1995.*

*Note added in proof:* Despite the apparent rarity of this spider, with great astonishment, I collected yet another specimen of *P. rufus*, once again inside my apartment. On 19 February 1996 (2100 h during rainy weather), a mature female was discovered on a dining room wall, four m from where the male was found. This spider (the fifth known mature female ever collected) is 6.2 mm long with a 2.5 mm cephalothorax and 3.7 mm abdomen. In alcohol, the unpigmented eyes in both Riverside specimens form a contiguous band of silver. The female was viewed alive; and the nonpigmented eyes were separated by discrete distances and carapace pigmentation, looking very much like a typical gnaphosid. Because my only previous experience with this species was the preserved male, I did not recognize the significance of my catch until the female was preserved; otherwise, it would have been kept alive to obtain life history information of which there is virtually none for the whole family. Identification was corroborated by N. Platnick, the spider is housed in the University of California, Riverside collection; and I remain bemused why my abode has become a hospice for this very rare species.